

"The primary goal of this PMA is the implementation and adoption of least toxic IPM strategies to control ants in urban environments, to reduce the amount of insecticide used to control ants, and develop strategies that prevent or significantly reduce the amount of insecticide in water runoff. Specifically, reduce by 50% the amount of pyrethroid insecticide applied to control pest ants around residential structures with participating pest management companies."

Develop a Proactive Approach

- 1. Input and assistance of Lloyd Pest Control, Orkin, and Western Exterminator 2008
- 2. Expand 2009 A-Pro Pest Control, Clark Pest Control, Corky's Pest Control
- 3. Research, Extension, Industry and CDPR participation.

Pest Management Plan

Conventional Route

- 1. Survey homeowners
- 2. Standard routes
- 3. Standard applications of pyrethroids, ect.
- 4. Determine amounts applied
- 5. Fall survey

IPM Route

- 1. Survey homeowners
- 2. Elimination of standard sprays
- 3. Eliminate or reduce pyrethroid applications
- 4. Modified treatments
- 5. Fall survey

Routes 200 accounts

Data Collected

- 1. Pesticides used and amounts
- 2. Customer satisfaction
- 3. Labor and time involved to treat
- 4. Cost of conducting Conventional and IPM Modified Routes.

Orkin 2008 Routes

	Traditional Rte.	IPM Rte.
No. units	1,634 (252)	1,832 (200)
Avg. min/stop	22.4	23.5
Ants	278	391
Spiders	617	1,857

Orkin 2008 Routes

	units	Std. Rte.	IPM Rte.
Talstar Pro (bifenthrin)	gal	3,440.3	1,837.1
Cykick (cyfluthrin)	OZ	0	27.4
Talstar G	oz	0	361
Termidor	gal	0	9.8

Orkin 2008 Routes

	Std. Rte.	IPM Rte.
Were you satisfied with your ant control in 2008 compare	40 Y	45 Y
with 2007?	11 N	8 N

ORKIN 2009

Standard Rte

- IPM Route 2008
- 50% reduction in pyrethroid sprays

IPM Rte

 50% Reduction of pyrethroids from 2008 IPM Rte.

Orkin 2009 Routes

	Traditional Rte.	IPM Rte.
No. units	1,125 (157)	1,252 (113)
Avg. min/stop	20.9	24.7
Ants	91	138
Spiders	193	1,178

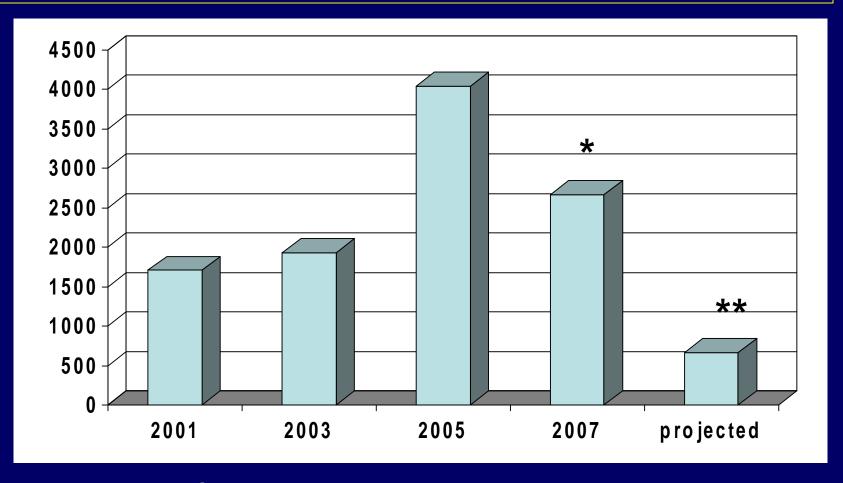
Orkin 2009 Routes

	units	Std. Rte.	IPM Rte.
Talstar Pro (bifenthrin)	gal	1,242.5	836.6
Cykick (cyfluthrin)	ΟZ	0	22
Talstar G	oz	12	644
Termidor	gal	52.8	81.5

Orkin Routes

	units	Std. Rte.	IPM Rte.
Talstar Pro (bifenthrin)	gal	3,440.3	836.6
Cykick (cyfluthrin)	OZ	0	22
Talstar G	oz	0	644
Termidor	gal	0	81.5

Bifenthrin Ibs Al – Orange Co.

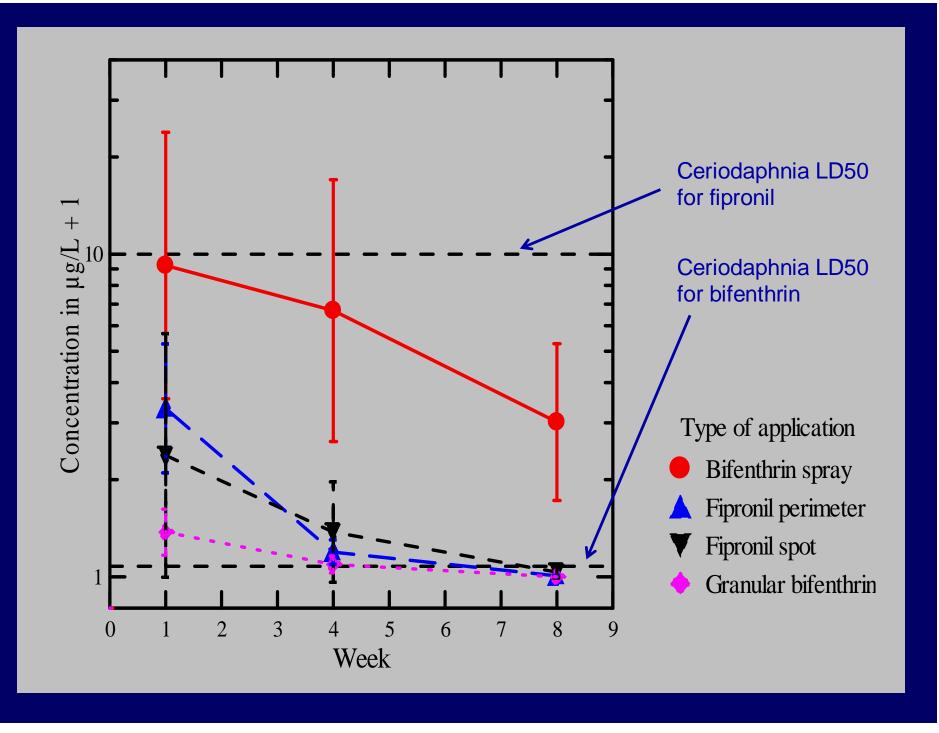


* 0.06 % spray = 532,365 gal spray

**0.06% spray = 133,091 gal spray

Orkin Routes

	units	Std. Rte.	IPM Rte.
Talstar Pro (bifenthrin)	gal	3,440.3	836.6
Cykick (cyfluthrin)	OZ	0	22
Talstar G	oz	0	644
Termidor	gal	0	81.5



What are your biggest accomplishments as a result of the grant?

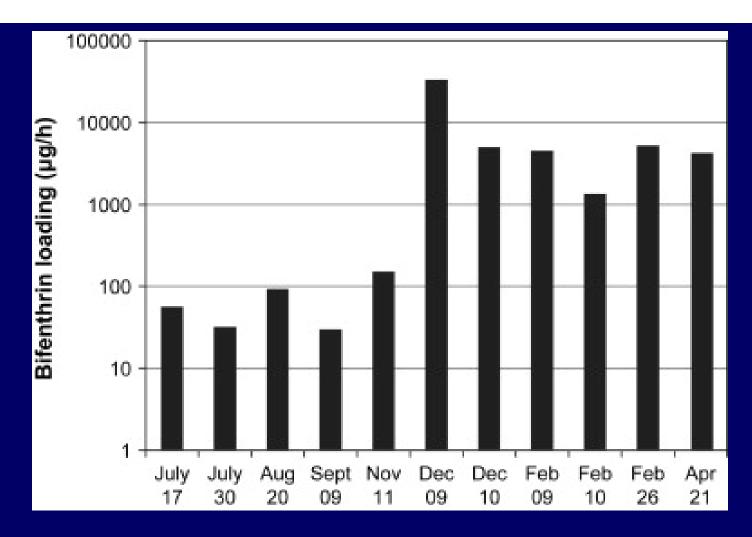
- 1. Proactive industry involvement!
- 2. 2009 Lloyds Pest Control 97% reduction pyrethroid use!
- 3. 2009 Western Exterminator 100% reduction in pyrethroid use

Next Steps

- 1. Expand to include other pest control companies.
- 2. Incorporate low-impact sprays and baits that are being tested.
- 3. Convert to quarterly service

Potential Reductions

Orkin Routes	Total	Monthly	EOM	Quarterly
PMA IPM	379	127	236	16
Conventional	365	129	226	10
Treatments		3,072	2,772	104 5,948 -2,972



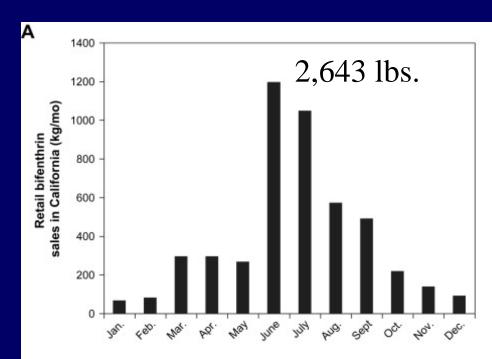
Pleasant Grove Creek (Roseville,CA) – "A single intense storm was capable of discharging as much bifenthrin in 3h as that discharged over 6 mo of irrigation runoff."

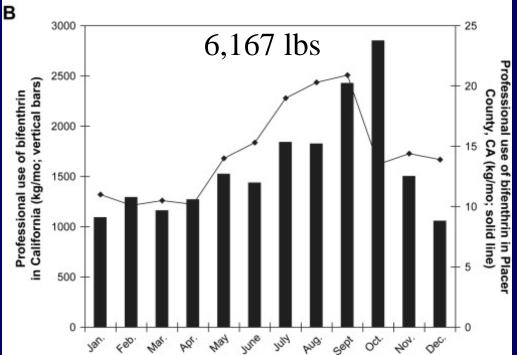
Weston et al. 2009

Retail Sales Bifenthrin In California

Professional Use California

Placer County





Will the partnership and collaboration exhibited during the grant continue into future????

Industry's participation has been outstanding!!

UC participation is dependent on extramural funding!!